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SWISS DEVELOPMENT COOPERATION
AND HUMANITARIAN AID



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E V A L U A T I O N
OF THE
ORAL THERAPY EXTENSION PROGRAM (OTEP)

OF THE
BANGLADESH RURAL ADVANCEMENT
COMMITTEE (BRAC)

II APPENDICES

JANUARY 24, 1983 - FEBRUARY 12, 1983

Shushum BHATIA
Richard A. CASH
Immita CORNAZ

APPENDICES

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BRAC
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APPENDIX 1

ABBREVIATIONS USED IN THE OTEP EXTERNAL EVALUATION REPORT

AM	area manager
BIDS	Bangladesh Institute for Social Studies
BRAC	Bangladesh Rural Advancement Committee
EET	external evaluation team
EVABO	Evaluation of BRAC Oral Therapy Extension Program
ICDDR,B	International Centre of Diarrhoeal Disease Research, Bangladesh
IV	Intravenous Therapy/Fluid
LGS	lobon and gur solution
NORP	National Oral Rehydration Program
ORT	oral rehydration therapy
ORW	oral rehydration worker
OTEP	oral Therapy Extension Program
PM	program manager
PO	program organizer
RM	regional manager
SIDA	Swedish International Development Assistance
SPSS	statistical package for social sciences
TAC	Technical Advisory Committee (of OTEP)
TARC	Training and Resource Centre (of BRAC)
TC	team coordinator

APPENDIX 2

EXTERNAL EVALUATION TEAM

Team Members

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APPENDIX 3

O T E P EXTERNAL EVALUATION

Terms of reference (December 21, 1982)

1. Main Focuses of the evaluation

- a) The results achieved by ORP seen in the light of its objectives: make people understand why oral rehydration and how to use it and make people use it and reduce the ill effects of diarrhoea.
- b) The actual capability of people to protect and improve their health.
- c) The possible future of the ORP program in view of
 - its short and long term objectives,
 - the available resources in Bangladesh (human, financial, institutional and other resources) and
 - the existing institutions and social, economic and administrative structuresseen in the perspective of maximum self-reliance of Bangladesh and maximum participation of the population.

2. Tasks of the evaluation

- a) To assess the actual impact of the project as implemented (for specific questions see point 3 below);
- b) To assess the experiences gained so far through the implementation of the project;
- c) To point out the factors or aspects which are of particular importance for the future impact of the project in view of the 3 main focuses of the evaluation (point 1):
- d) To propose recommendations / options deriving from a - c for the future of the project, in particular for the implementation for the next 2 - 3 years and possible external contributions:
 - facts or considerations which should be taken account of,
 - conditions which should be observed,
 - other recommendations or suggestions if any;

APPENDIX 3

- e) Possibly and complementarily to c) to make suggestions for the set up of long term studies, observations or evaluations carried out or to be carried out by BRAC itself, by ICDDR or by other institutions.

3. Specific questions to be answered

3.1 Impact

- a) What is the actual impact of the project, as implemented (impressions, trends), on
- use of oral rehydration methods and nutritional practices in case of diarrhoea;
 - mortality due to diarrhoea;
- b) What are the main factors influencing this impact, positively or negatively? To be considered in particular:
- i) method of approach: time spent by the team in the village, with each family; content of the "message" and method of delivering it; etc;
 - ii) the ORWs (Oral Rehydration Worker): their profile, their training (content and method), their "motivation" and their understanding of the short term and long term objectives of the programme; influence of the "incentive system" etc;
 - iii) the "preparation" of the village: preliminary contacts; role of school, etc.;
 - iv) follow-up after the work has been done by the ORW;
 - v) socio-cultural and socio-economic context of the village and of the family, including level of education of the mother (= relevance of the aim and the method of the project);
 - vi) degree of involvement of men;
 - vii) organisation of work;
 - viii) relation with other (health) activities (cf. 3.4 and 3.5).
- c) What are the possible long term trends, in particular also in relation with the possible or aimed for impact on morbidity and malnutrition due to diarrhoea? This question will have to be considered with BRAC and ICDDR staff in view of the permanent evaluation.

3.2 Objectives of ORP

Given the situation in the villages, are the objectives of the project fully adequate or should they be adjusted?

3.3 Additional / Complementary measures

- a) Are additional measures or actions needed or should they be strengthened, e.g. follow-up (by whom?), information through mass media?
- b) What and how much is done and achieved in the field of prevention (sanitation, personal and domestic hygiene, health education, nutrition); is this satisfactory or should the actions be strengthened or other actions be advocated?

3.4 Relation with other actors of the health system

- a) What are the relations with the other actors (official health system, ICDDR and other private institutions): possible duplication, conflicts and/or complementarity? What kind of relation / collaboration / integration would be the optimum?
- b) Is there a possible impact of the program on these institutions?

3.5 Relation with other actors outside the health system

What is the role of school, mosque, radio or other institutions? Suggestions?

3.6 Type of approach

What are the advantages and disadvantages of the "vertical approach" used by the ORP (see also 3.8)?

3.7 The future work of ORWs

How does BRAC intend to "use" the ORWs after they have finished their work with the team, to take advantage of their training and their experience and (possibly) their motivations, credibility, prestige or power?

3.8 Inputs

Is the amount of inputs for each family or community (finances, time spent, people involved) justified taking into account the actual results, taking also into account other (possible) actions in the health field and the inputs they need (effectiveness, "competition" in the use of the resources)?

3.9 Health promotion by the community; social structure

The following questions are to be considered as "background questions":

- a) Does the program contribute to the increase of the capacity of the family to take an active part in the protection and promotion of health and the recognition by the people of the responsibility they have? What makes such an impact possible, what are the possible difficulties or barriers?
- b) Does the program have an impact on the situation of women: their self esteem, their initiative, new leadership, acceptance by men of their role?
- c) Does the program contribute to the development of primary health care at village and possible thana level?

4. Method of work of the evaluation

- 4.1 The evaluation team should have at the beginning of its work an assessment of the available data and of possible "blind spots"; this assessment should be prepared in advance together by BRAC, ICDDR and the coordinator of SDC.
- 4.2 Information should be gathered mainly through field visits. Field impressions should be gathered in at least two zones and at least three locations within each zone representing different stages in the campaign. ICDDR could possibly render services.
- 4.3 The evaluation team should cooperate as closely as possible with BRAC staff, this in order to gain as much inside information and knowledge as possible and to allow BRAC to test its own built-in evaluation.
- 4.4 The first draft of the evaluation report should be prepared and discussed with BRAC before the evaluation team leaves Bangladesh.

ACTIVITIES OF EVALUATION TEAM

Mon. January 24, 10 a.m. - 12 a.m. meeting at BRAC Office; participants:

Mr. F.H. Abed, Executive Director, BRAC
 Dr. A.Q.B. Rahman, Program Manager, BRAC
 Dr. Stan D'Souza, Program Head, ICDDR, B
 Member of OTEP-TAC (Technical Advisory Committee),
 resource person for External Evaluation
 Dr. H. Escher, Head of the Office of the Swiss
 Development Cooperation, Dhaka
 Lief Thybell, Director
 Swedish Free Church, Dhaka
 Dr. I Cornaz, Member of the External Evaluation Team
 Ms. Adrienne Germain, Representative, Ford Foundation, Dhaka.

Afternoon: Delayed arrival from Bombay of External Evaluation Team (EET) members
 Dr. S. Bhatia and Dr. R. Cash

Tues. Jan. 25: Meeting of EET with Executive Director of BRAC and with
 Dr. Rahman, Sukhendra Kumar Sarkar (Regional Manager) and
 Ms. Jalal (member of Research and Evaluation Division, BRAC).
 Meeting at ICDDR,B with Dr. W.B. Greenough, Director of ICDDR,B
 member of OTEP-TAC, Dr. D'Souza, together with Mr. Abed.

Wed. Jan. 26: Preparatory work
 Visit NORP Program (National Oral Rehydration Program), meeting
 with Dr. Aftabuddin Kahn, Former Acting CDD Director and Dr. Hussain,
 the new Director of NORP together with Mr. Gomez and 2 other
 members of UNICEF Office in Dhaka.

Thurs. Jan. 27: Meetings with Mr. Abed, Dr. Rahman, Dr. D'Souza; preparatory work.

Fri. Jan. 28: Holiday (Preparatory work and personal affairs).

Sat. Jan. 29: Departure of Evaluation Team for Jessore (by Air)
 Upon arrival in Jessore had meetings with Mr. Sukhendra Kumar,
 Fazlul Karim (A.M. Jessore) and Mustiqur Rob Chowdhury (A.M.
 Khulna) at the office. For the rest of the day visited Nanhati
 Union in Khulna district and observed the ongoing activities of
 the ORWs. Also had a talk with paramedics running a Red Cross
 Clinic in the village where the ORW team was based.

- Sun. Jan. 30: With Regional Manager and Area Manager (all day) Return to Jessore Airport to meet Dr. Greenough (flight delayed); Trip to Katol (Shalika Thana, Shalika Peer), observation of research team in action and brief contact with supervisor and one team member; Return to Jessore airport to meet Dr. Greenough who had to cancel visit (flight delayed by almost 5 hours); Trip to Monirampur (Kesebpur Peer; ORW teaching completed in March 1982): Unannounced visit to Monirampur Health Centre and meeting with the Thana Health Administrator. Dr. S.M. Mustapha Anwar, the Family Planning Officer, Dr. Munajit Ali and the Medical Officer. Dr. S.A. Md. Musa; Visit to one family in the village and contacts with male members of the village; Trip to Hoshanpur (ORW teaching completed Sept. 81, region hit by Cholera epidemic 1982), impromptu meeting with UP Chairman (Union Parishad) and more than 50 men (bazaar day); Return to Jessore.
- Mon. Jan. 31: Departure to Faridpur by road. Stop enroute to ask villagers (trained 8 months earlier) about ORT
Faridpur - met AM Lutfur Rahman Enroute to visit ORW stopped at Primary school in Bhabukara Thana village Nagarkanda. Visit to ORW team - Bhanga Thana, Bhanga Union, West Sadardi union. Visit to Reinforcement Team - Bhanga Union
- Tues. Feb. 1: Visit to Gharcia Union to meet with Reinforcement team, Pallichikitshak and Union Council Chairman.
Return to Faridpur for meeting with AM
Return to Dhaka via road with stop at BRAC project in Manikganj.
- Wed. Feb. 2: Meetings with Mr. Abed, Dr. Rahman, Mr. Mustagque Chowdhury, Head of Research and Evaluation Division, BRAC.
- Thurs. Feb. 3: Departure of Dr. S. Bhatia (S.B.) and Dr. I. Cornaz (I.C.) to Sylhet by air.
Meeting with four female workers of the Research Team at Sylhet office along with Mr. K.N. Farouk (member of Research and Evaluation Division) who was supervising their activities. Later, along with Dr. Rahman and Mr. Farouk, visited areas in Rajnagar Thana in 3 villages (Mohalla, Panchashar and Banamali Panchashar) in Mansurnagar Union where the BRAC training was conducted 2-2 and a half years ago. A number of households were visited and several women were interviewed to assess their knowledge and use of ORT. Spend night at Saatgoan Tea Estate.
- Dr. R. Cash (R.C.) (in Dhaka) had discussions with Messrs. A.M.R. Chowdhury, Jalal, Najma Ansari (Programmer) and Aurobindra on data collection, coding, processing, analysis. Report writing, data analysis.

APPENDIX 4

Fri. Feb. 4: S.B. and I.C.: Return to Sylhet with Dr. Rahman and Faruk.

With Dr. Rahman and Area Manager Mr. Mizam, trip to Kidrakapou (Thana Chhatak, Union Zawabazar); visit to ORW camp and observation of ORW team teaching; exchange of views with health practitioner and visit to local pharmacy (held by his son); Trip to Rauthgaon (Union Karmā South) and observation of ORT team teaching; Return to Sylhet; Brief visit of OTEP laboratory and Sylhet Area Office.

R.C.: Report drafting. Visit ICDDC,B to discuss rice-based ORS with Dr. M. Molla.

Sat. Feb. 5: S.B. and I.C. together with Mr. Abed (all day), Dr. Rahman (only for the first two parts) and Mr. Mizam (all day): trip to Gowainghat Thana; on the way stop in Nizpath Union (Thana Jaintapur), brief contact with ORW team on their way to a new village; observation of male seminar conducted by team coordinators, attended by about 25 adults; Continuation of trip to Gowainghat Thana, Jalong Bazar (base of reinforcement team), observation of their work at Chailakhali village and brief contact with them; On the return, trip to Hazirpur, base of ORW team, and meetings (conducted by Mr. Abed) with the 7 ORWs and with the 2 TC; return to Sylhet.

R.C. met with Dr. D'Souza, S. Zimicki, AMR Chowdhury - discussed data processing. Report writing and data analysis.

Sun. Feb. 6: Return flight of S.B. and I.C. to Dhaka with Mr. Abed and Mr. Rahman; Meeting with Anish Barua, Manager, Information and Education, BRAC; Report writing.

Mon. Feb. 7: Meeting with Mr. Abed, Dr. Rahman and Mr. Sukhendra. Report writing, Seminar on BIDS on Drug Policy.

Tues. Feb. 8: RC and SB to morning seminar at office of UNICEF on ORS programs. Representatives form among others - UNICEF, UNFPA, UNDP, CARE, ICDDR,B, BRAC. Meeting afterwards with Dr. Greenough. Report writing.

Wed. Feb. 9: Meeting with Mr. Shukhendra, AMR Chowdhury and others from Evaluation Unit on Usage Survey Report Writing.

Thurs. Feb.10: Meeting at BRAC with M. Esher, Dr. Greenough, Dr. D'Souza, Ms. A Germaine, Mr. Abed, BRAC OTEP Staff - Dhaka to discuss final report and recommendations. Meeting with management staff of Evaluation Unit and Mr. Shukhendra to discuss usage and teaching.

Fri. Feb.11: Report writing.

Sat. Feb.12: Report writing.

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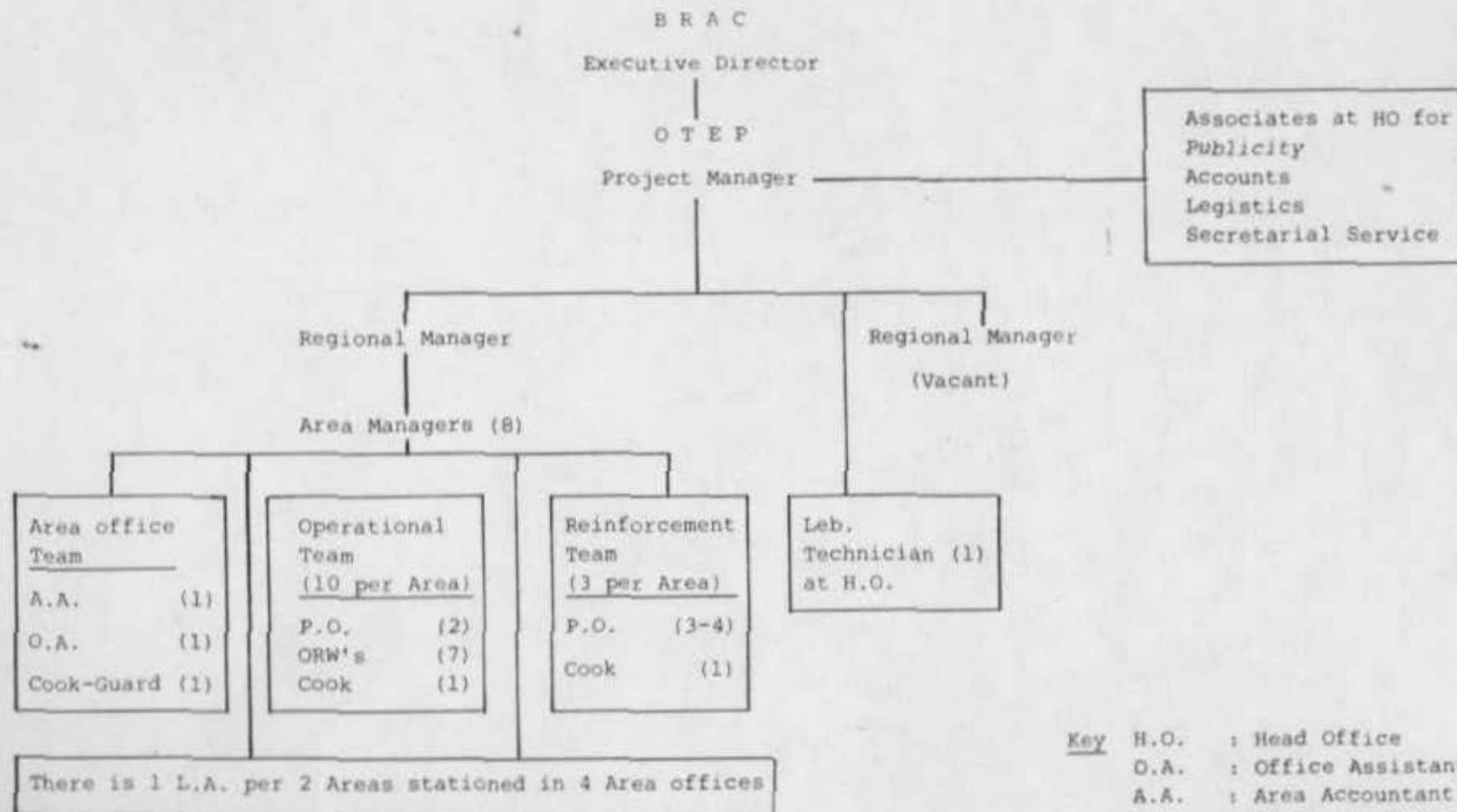
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Fri. Feb.11: Report writing.

Sat. Feb.12: Report writing.

O T E P
ADMINISTRATIVE STRUCTURE *



Key

H.O. : Head Office

O.A. : Office Assistant

A.A. : Area Accountant

P.O. : Programme Organizer

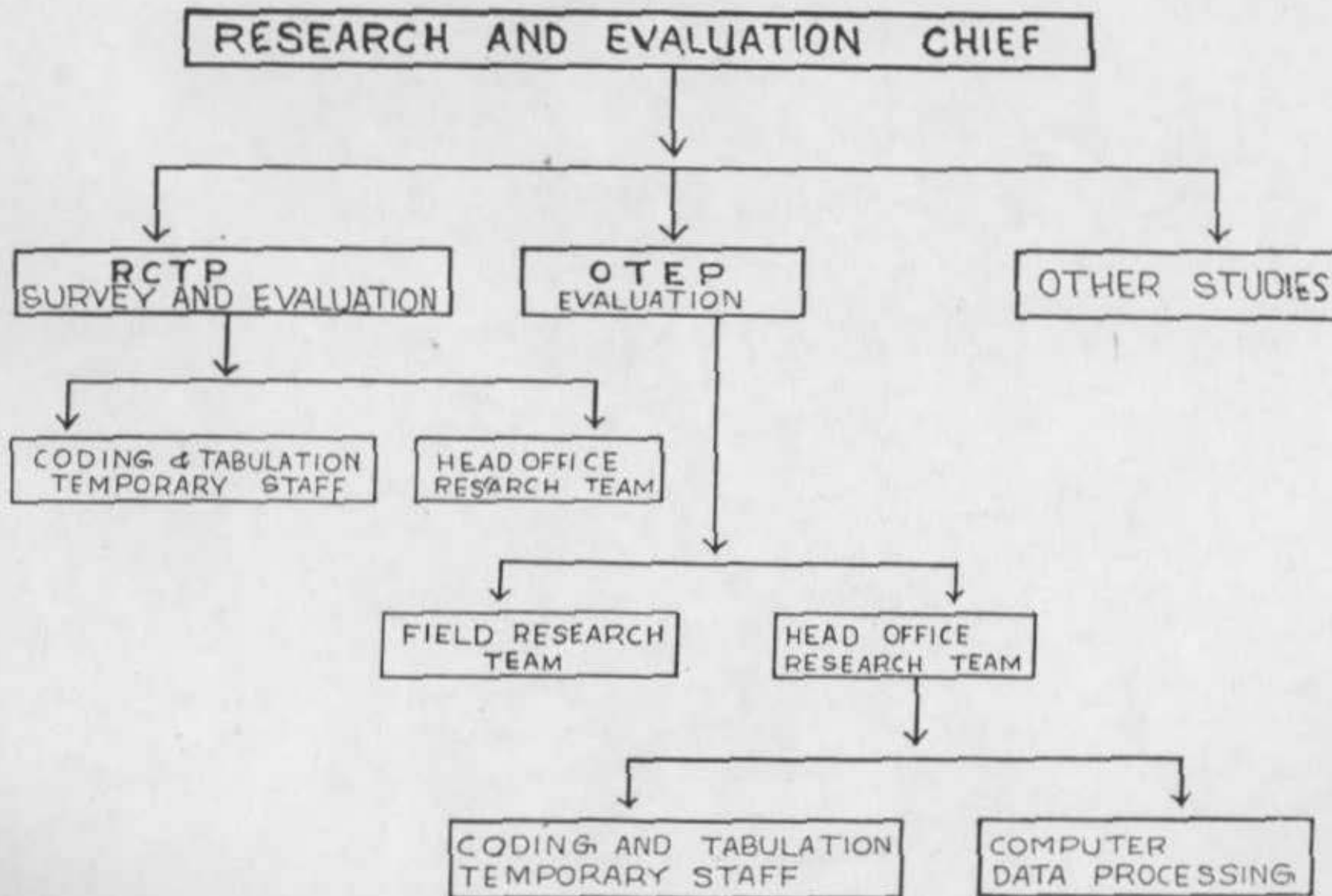
ORW. : Oral Rehydration Worker

L.A. : Laboratory Assistant

* As on 31 December 1982

BRAC

RESEARCH AND EVALUATION DIVISION OPERATIONS STRUCTURE



APPENDIX 6

O T E P Staff February 19831 Field Staff Positions

Name of Area	A.M.	T.C. for ORW Teams	Members of Rein. Team	ORW	Lab. Asstt.	Other Staff	Total
SATKHIRA	1	23	10	70		16	120
KHULNA	1	16	9	51	1	14	92
JHENAI DAH	1	22	9	67		16	115
CHUADANGA	1	22	13	75	1	17	129
MADARIPUR	1	20	9	63	1	16	110
FARIDPUR	1	16	12	57		14	100
SYLHET	1	40	23	126	1	33	224
TOTAL	7	159	85	509**	4	126	890

* Sylhet area covers also Sunamganj; Chuadanga area covers also Meherpur

** Including 10 ORW's on leave.

2. Staff at Dhaka Office
(paid by OTEP)

Programme Manager	1
Regional Manager	1
Education and Information Manager	1
Laboratory Technician	1
Accountants	2
Others (Logistic, Drivers, Typist)	8

3. Research Team Staff
(paid by OTEP)

Dhaka : Regular staff	4
Temporary staff	10
Field	15

O T E P B R A C

Check List for Team Coordinator1. Pre-contact:

T.C. in charge will check atleast 20% of pre-contacted villages just after conducting pre-contact by T.C. (2nd man).

Process: 5% of the H. Hs to be checked taking one person (male) from each H.H.

2. ORW supervision:

i) T.C. in charge will resupervise 25% of the ORWs supervised earlier by the 2nd man per fortnight.

ii) T.C. in charge & 2nd man shall supervise at least 2 ORWs/fortnight in the same sitting & put records separately & will give feed back after comparing their results.

iii) While supervising he will ensure all aspects of ORWs activities are covered.

3. Patient care & follow-up:

Incharge will check 10% of the pts. covered by the second man/fortnight. Further he will take part in one demonstration meeting at least in a fortnight.

4. Cadre selection:

Will check 5% of the cadres selected by 2nd man and ORWs fortnightly.
(Process: Individual contact & interview).

5. H.H. coverage:

Will check 2 villages/union at least to confirm optimum coverage.

6. Poster:

Will check 50% of the villages & selected places.

7. Diary:

ORWs diary will be checked everyday & time to time with the check 2nd man's diary.

8. Mess:

Mess acctts (expenditures etc.) will be checked at least once in a week at the time of weekly meeting.

9. Stock verifying once in a fortnight.

Job Description for the Area Manager - OTEP/BRAC

1. He will work under the direct supervision of Regional Manager.
2. He is responsible for all the activities both in the field and in office (including laboratory).
3. As such he will act as supervisor of all the staff assigned to his area.
4. For proper activities in the field, he is expected to spend normally 15 nights a month outside his headquarters for actual and effective supervision. He must ensure that the supervision is thorough indept and really effective.
5. He will submit to RM and to other higher authorities routine and other reports, returns and information right on schedule whenever asked to do so.
6. He will maintain all books, ledgers, registers, files. charts etc uptodate
7. He will place demand for cash and supplies on schedule. Before doing so he is to scrutinise and be reasonably assured that all the formalities as per instructions issued from time to time by HO and other supervisory echelons are properly followed.
8. He will ensure all supplies and stores are properly stored, taken on charge, maintained and used judiciously.
9. He will be personally responsible to ensure follow-up of all the steps by concerned personnel during pre-operation study, base selection, pre-contact. ONW activities and supervisions, all forums, patient care and follow up etc. In case of any difficulties or deviations from the instructions, he is to seek advice of RM.
10. He will act as drawing and disbursing officer for all staff either posted or attached to his area.
11. He will be empowered to effect transfers of P.O.s, monitors and other staff in his own area. But before doing so he is to keep RM informed about such moves which of course would only be done in the interest of the project.
12. He is to organize meetings/workshops either routine or special whenever required to do so.
13. He will enjoy such financial authority as has been delegated to him. He will be personally responsible for any misuse of funds including over and unnecessary expenditure. He will strictly follow all instructions regarding proper handling of cash and maintenance of cash book, He should fully realize that Account Assistant is his subordinate and at the same time his advisor on finance including cash and accounts.
14. He must show example to be followed by others in his area. As such he is to be dynamic, methodical and impartial and at the same time considerate, sympathetic and knowledgeable.
15. He is to carry out any other duty or duties as may be entrusted to him from time to time by his supervisors.

RECRUITMENT AND TURNOVER OF OTEP STAFF

No. of staff recruited
from June '80 to 31st
January 1983

No. of staff joined
from Aug. '80 to
31st January 1983

No. of staff resigned
from Aug. '80 to
31st January 1983

No. of staff terminated
from Aug. '80 to 31st
January 1983

No. of staff present
February 1983

HSC 12 yr	Deg. 14yr	Msr. Deg. (16 yrs)	Total	HSC	Deg.	Msr.	Total	HSC	Deg.	Msr.	Total	HSC	Deg.	Msr.	Total	HSC	Deg.	Msr.	Total
319	198	82	599	246	180	67	493	89	47	11	147	56	31	7	94	101	102	49	252

Resigned

Less than one year			Less than 2 years (More than 1 yr.)			More than 2 years			Grand Total		
HSC	Degree	Masters	HSC	Degree	Masters	HSC	Degree	Masters	HSC	Degree	Masters
81	36	8	6	10	1	2	1	2	89	47	11

Terminated

Less than one year			Less than 2 years (More than 1 yr.)			More than 2 years			Grand Total		
HSC	Degree	Masters	HSC	Degree	Masters	HSC	Degree	Masters	HSC	Degree	Masters
51	19	4	5	11	-	-	1	3	56	31	7

Years of school training: HSC : 12 years
Degree : 14 years
Masters: 16 years

Appendix 10 TRAINING OF O T E P STAFFa) ORW Pre-Selection Training Module1st Day:

9:00 am	Getting acquainted
10:00 am	
10:00 - 10:30 am	Ex. I. Description of BRAC
10:30 - 11:30 am	Ex. II Warm-up (perception of the participants)
11:30 - 11:45 am	Tea Break
11:45 - 12:45 pm	Ex. III Discussion on Diarrhoea
	LUNCH
4:00 - 4:30 pm	Ex. IV Objective of OTEP
4:30 - 5:30 pm	Ex. V Explanation of 7 points
5:30 - 6:45 pm	Ex. VI Demonstration. How to make Lobon-Gur saline
6:45 - 7:00 pm	Ex. VII Distribution of 7 points Sheets
	CLOSED

2nd Day:

9:00 - 9:30 am	Ex. VIII Written Examination on 7 points
9:30 - 11:30 am	Ex. IX Practical Examination: Make the LGS
11:30 - 11:45 am	Tea Break
11:45 - 12:30 pm	Ex. X Demonstration of Role Playing through Flip Chart
	LUNCH
4:00 - 8:00 pm	Ex XI Role playing by all participants
8:00 - 8:45 pm	Ex XII Discussion: What participants learned & how to improve.
	CLOSED

3rd Day:

7:30 am	Ex XIII Distribution of materials & Directives of Field work
8:00 - 2:00 pm	Ex XIV Field Work
6:00 - 6:30 pm	Ex XV Review of 7 points
6:30 - 8:30 pm	Ex XVI Group discussion: problem faced & solved
	CLOSED

4th Day:

9:00 - 9:30 am	Ex XVII Examination of 7 points
9:30 - 11:30 am	Ex XVIII Role of ORW in OTEP
11:30 - 11:45 am	Tea Break
11:45 - 1:00 pm	Ex XIX Basic Guidelines (Session I)
	LUNCH
4:00 - 6:00 pm	Ex XX Basic Guidelines (Session II)
6:00 pm	Ex XXI Discussion Operational plan
	CLOSED

5th Day:

7:30 - 2:00 pm	Ex XXII Field Work
4:00 - 5:00 pm	Ex XXIII Problems encountered & to solve.
6:00 pm	Announcement of Result

b) Module for ORW Refresher Course

Exercise I	Concept of Diarrhoea -Definition -Myth -Local Term (Pathla paikhana)	20 mnts.
Exercise II	-Clarification of Self Limiting Concept -Discussion on Handout -Lecture by Selected Participants -Processing	3 hrs.
Exercise III	-One way - Two way Communication Processing	45 mnts.
Exercise IV	Demonstration of Flip Chart by the Trainer Methodology	30 mnts.
Exercise V	Demonstration by ORWs	
Exercise VI	Demonstration of Health materials by the trainer	
Exercise VII	Demonstration by ORWs	

c) TRAINING PROGRAMME

for BRAC Programme Organizers, held at TARC, Savar, 1982

Objectives:

1. To enable the participants in getting a clear understanding of the Developmental Needs in Bangladesh.
2. To acquaint the participants about BRAC's approach and strategies to Development with justifying rationality.
3. To help them gain a clear understanding of BRAC's goal, objectives and activities.
4. To facilitate the participants acquired skills of working with TG in terms of communication, leadership, programme planning and management.

Duration: 9 days.

Methods: Lecturette, Brainstorming, Small group discussion, structured experience.

Programme:

DAY I

9:00 - 10:00 am	Introduction/Course objectives
10:00 - 11:00 am	Getting Acquainted
11:00 - 11:30 am	Tea break
11:30 - 1:00 pm	Timing/Group formation/SPERO
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Social structure/Power structure

DAY II

9:00 - 11:00 am	Continuation of previous discussion
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	TG identification
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Mechanism of Rural Exploitation

DAY III

9:00 - 11:00 am	An understanding on development
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	Continuation of above
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Approach Development

DAY IV

9:00 - 10:00 am	Concept of leadership
10:00 - 11:00 am	Kinds of Leadership
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	Style of leadership
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Features of traditional & creative leadership.

DAY V

9:00 - 11:00 am	Decision Making process (Merits & Demerits of participatory and non-participatory decision making)
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	Leadership development process in Grassroot groups
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Role assessment

DAY VI

9:00 - 10:00 am	Communication as a concept
10:00 - 11:00 am	Sender - Receiver Model of Communication
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	Continuation of above
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Rumeru clinique

DAY VII

9:00 - 11:00 am	Direct (effective) communication
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	Abstraction ladder
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Performance objectives

DAY VIII

9:00 - 10:00 am	Concept of Planning
10:00 - 11:00 am	Approach to planning
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	Programme designing frame-work
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Programme designing in (practical work) in group by participants

DAY IX

9:00 - 10:00 am	Evaluation of designed programme
10:00 - 11:00 am	Concept of Management
11:00 - 11:30 am	Tea Break
11:30 - 1:00 pm	Steps or tasks of Management
1:00 - 3:00 pm	Lunch Break
3:00 - 5:00 pm	Training evaluation/Closing

d) 3 examples of
Modules for the Training of Program Organizers
(and Team Coordinators)

EXERCISE: "Performance Objectives"

- Goals:**
1. To introduce the concept of performance objectives.
 2. To enable participants acquiring skills of setting objectives in performance terms.

Materials: Handout - 2 (worksheets)

Time: 2 hours.

Procedures:

- Facilitator cites an example on the black board writing an objective in performance terms covering the answers of where, who, whom, when, what, how, why.
- Distributes worksheet to each participant and asks to practice on the given objective in non-performance terms into performance terms. Facilitator hints to follow the set examples on the black board.
- Participants complete and have an evaluative discussion of this task.
- The discussion ends by pointing out that performance objectives are visible, precise, specific, while non-performance ones are invisible, vague, and non-specific.

EXERCISE: "Concepts and Approach to Planning"

- Goals:**
1. To help the participants defining planning
 2. To enable the participants making aware of merits and demerits of different approaches to planning.

Methods: Lecturette/Small group discussion

Time: 2 hours.

Procedures:

- Tell the participants to give ideas on the definition of planning.
- Generalization of the ideas and preparation of definition.
- Discuss about the types of approaches.
- Small group discussion on the merits and demerits of different types of approaches.
- Group decision on the approach to follow in own working situation.

EXERCISE: "Programme Designing"

- Goals:**
1. To enable the participant in acquiring programme planning skills
 2. To enable the participants in understanding implementation and evaluation procedures of programme in Developmental perspective.

Time: 5 hours.

Methods: Lecturette/Group Tasks

d) 3 examples of
Modules for the Training of Program Organizers
(and Team Coordinators)

EXERCISE: "Performance Objectives"

- Goals:
1. To introduce the concept of performance objectives.
 2. To enable participants acquiring skills of setting objectives in performance terms.

Materials: Handout - 2 (worksheets)

Time: 2 hours.

Procedures:

- a. Facilitator cites an example on the black board writing an objective in performance terms covering the answers of where, who, whom, when, what, how, why.
- b. Distributes worksheet to each participant and asks to practice on the given objective in non-performance terms into performance terms. Facilitator hints to follow the set examples on the black board.
- c. Participants complete and have an evaluative discussion of this task.
- d. The discussion ends by pointing out that performance objectives are visible, precise, specific, while non-performance ones are invisible, vague, and non-specific.

EXERCISE: "Concepts and Approach to Planning"

- Goals:
1. To help the participants defining planning
 2. To enable the participants making aware of merits and demerits of different approaches to planning.

Methods: Lecturette/Small group discussion

Time: 2 hours.

Procedures:

- a. Tell the participants to give ideas on the definition of planning.
- b. Generalization of the ideas and preparation of definition.
- c. Discuss about the types of approaches.
- d. Small group discussion on the merits and demerits of different types of approaches.
- e. Group decision on the approach to follow in own working situation.

EXERCISE: "Programme Designing"

- Goals:
1. To enable the participant in acquiring programme planning skills
 2. To enable the participants in understanding implementation and evaluation procedures of programme in Developmental perspective.

Time: 5 hours.

Methods: Lecturette/Group Tasks

Procedures:

- a. Facilitator cites an example on the black board of the steps and design of a programme.
- b. Participants are divided into small groups consisting of 5-6 members in each group.
- c. Participants are told to think of a programme to design practically in a group.
- d. Facilitators fixes the time and asks to seek help time to time from him.
- e. Participants complete the tasks and put it on poster paper, and hang it on the wall.
- f. Discussion on each of the programmes held through careful check of missing any steps or becoming irrelevant.
- g. Discussion ends asking how could the participants apply this skill.

TEN POINTS TO REMEMBER

1. DIARRHEA is the condition of a patient who has more than one watery stool in a day.
2. TRANSMISSION of diarrhea is by the anal - oral route. This means the feces of an infected person or carrier enters someone else's mouth.
3. TREATMENT of diarrhea is oral replacement mixture, fluid and food.
4. ORAL REPLACEMENT MIXTURE is a mixture of sugar and salt in water.
Lobon-gur mixture is one kind of oral replacement mixture.
5. LOBON-GUR MIXTURE is made by mixing a three-finger pinch of salt (up to first crease of index finger) to 2 four-finger scoops of gur in one-half seer of tubewell or boiled water and stirring.
6. You should BEGIN giving lobon-gur mixture after the first watery stool.
7. For children, the AMOUNT of lobon-gur mixture should equal the amount of water in the stools. If the mother does not know, let the child have as much as he desires.
For adults, give one-half seer for each stool.
8. Lobon-gur mixture can be DANGEROUS when
 1. TOO MUCH SALT is added to mixture
 2. Infants and small children are not given SMALL, FREQUENT FEEDINGS.
9. A DOCTOR should be consulted when:
 1. Diarrhea lasts for more than two days.
 2. The patient can not take fluid by mouth.
 3. The patient has severe diarrhea and cannot replace the water he loses with lobon-gur mixture.
10. NUTRITIONAL ADVICE for patients with diarrhea includes the following:
 1. DURING diarrhea he should continue to take food and fluid.
 2. AFTER diarrhea he should take more than normal amounts of food and fluid for seven days.

SEVEN POINTS TO REMEMBER IN CASE OF DIARRHOEA

Diarrhoea Prevention Programme / BRAC

1. Loose motion and increased frequency of motion are the first symptoms of diarrhoea. Water and salt contents drain out from the body with each loose motion. If such loose motions continue for some time, symptoms like vomiting tendency, loss of appetite, indigestion and spasm of hands and legs may set in. Loose motion then turns into diarrhoea, which may prove to be fatal. So necessary measures should be taken in time to save the diarrhoea patients.
2. In order to save ourselves from this disease, we should drink tube-well, tap water. If such water is not available, water from other sources should be boiled and then cooled before use. Rotten food should not be eaten. All foodstuffs should be covered well so that flies cannot sit on them. Hands and mouth should be washed properly before eating. Remember that breast-milk is always harmless. But children fall sick when they suck dirty breasts. So the nipples of the breast should always be kept clean.
3. The only treatment of diarrhoea is to replenish by any means the water and salt lost. Previously it used to be done by intravenous saline injection. Injectable saline contains water, salt and glucose. But there are some difficulties to use such as saline for injections that are not easily available in the villages; and since these injections are intravenous, the services of a doctor are necessary moreover is expensive. It is, therefore, necessary to take timely measures so that loose motions do not turn into diarrhoea. The easiest treatment is to administer oral rehydration saline. This saline is also made of salt, water and sugar like saline for injections. But the advantage of it is that it can be prepared right in the house and it requires only a little bit of salt, molasses and pure water.
4. Oral rehydration saline is to be prepared by mixing a pinch of salt with the help of tips of three fingers and a fistful of molasses in half a seer of water well stirred. Care should be taken to mix salt, molasses and water in right proportion.
5. Oral saline should be administered immediately after the first loose motion. If it is delayed, it may be difficult to replenish the lost water and salt. As a result, there may be shortage of water in the system of the patient, and he/she may become weak. If dehydration takes place, saline injections become essential.
6. Adult patients should be given at the rate of half a seer of oral saline as prepared at a time after each motion. The children should be given only as much as they want, but at frequent intervals.
7. Advice in regard to nutrition: During the disease, the patient should be given to take plenty of water and foodstuffs like rice, curry along with oral saline. In case of children, breast-feeding by mothers must not be stopped. The patient should be given increased amounts of water and food at least for seven days after recovery. This will help to cure malnutrition and weakness of the patient and minimise the possibilities of his/her falling victim of the disease again.

DIARRHOEA IS A SERIOUS DISEASEPREVENT IT

MODULE FOR A MALE SEMINAR

Topic: Diarrhoea and ORS as its treatment

Participants: Adults (male) in rural areas

Objectives: a. To create awareness about diarrhoea and its seriousness.
b. To familiarize with the causes, symptoms and effects of diarrhoea
c. To introduce the idea of oral saline, its preparation and administration against diarrhoea and of some preventive and nutritional care.

Introduction of participants.

Questioning session: a. What is diarrhoea?
b. How many persons you know to have diarrhoea within your area?
c. How many persons you know have died of diarrhoea?

On the basis of the replies from the participants, following Message to be presented:

"Diarrhoea is one of the widely prevailing deadly diseases throughout the world. Annually about 2,500,00 die of this disease in our country only. Most of these ill-fated lives are of children under 5. It has been observed that the children in this country experience at least 2 major episodes of diarrhoea before their 5th birthday. Repeated attacks of diarrhoea causes malnutrition, morbidity leading to deaths. So we are to be aware about disease and should take utmost care to prevent and stop it."

Now ask following questions one by one after getting reply of the last one:

- What is diarrhoea and what are its symptoms?
- What are the causes of diarrhoea and how it transmits?
- What happens if one has diarrhoea?

Deliver the following message:

"Loose motion is the first symptom of diarrhoea or cholera. This may stop after 1 or 2 motions. Sometimes it may stop after few motions - but the patient turns weak. Again at times the watery motion continues for a longer period accompanied with vomiting that makes the patient very weak and at a stage he/she may die.

Diarrhoea can be caused by various types of germs like amoeba, Bacillus like shigella, Rotavirus, Vibrio-cholera etc. One cannot see the germs normally. These germs can transmit to human body through drinking and use of polluted water. These can also pass through stale, open food, or food contaminated by flies. You can have these germs by using unwashed hands, utensils etc. also, children can get diarrhoeal germs by sucking dirty nipples of mother's breasts. Again over eating, spicy food and indigestion can also cause loose motions.

Diarrhoeal patients lose water and salt from the body substantially in the form of watery stool. As we cannot live without water, the body also needs water for proper functioning. This loss of water from the body creates dehydration. This makes a patient weak. Initially he starts feeling thirsty, his throat gets dry, eyes sunken. In case of children, the fontanelle goes down.

If the situation continues, dehydration increases and at a stage patient loses strength stops taking food, skin gets dry, voice goes down, takes longer breaths, release of stool and urine stops and there may be no tones when he cries. In severe cases, the

patient may die.

If survives, he becomes very sickly and repeatedly attacked by different types of disease."

At this stage there will be a discussion on what treatment do the participants take in case of diarrhoea. Then the following message should be given:

It has been mentioned earlier that diarrhoea starts as soon as some specific germs are transmitted into the body. It is very natural that the body will try to push out the unwanted and useless elements of the body. Similarly our intestine also starts a wash-out process as soon as diarrhoeal germs enter into it. We see this in the form of watery stool and vomiting. The patient gets cured as soon as the body can wash out all the germs. This process may generally take 1-5 days. So just stoppage of loose motion is not the indicator that diarrhoea has cured. It is very important to wash out all of its germs from the body.

The only treatment of diarrhoea is to supply sufficient water to the body. This will help the body directly to wash out the germs and will keep the patient normal by resisting dehydration.

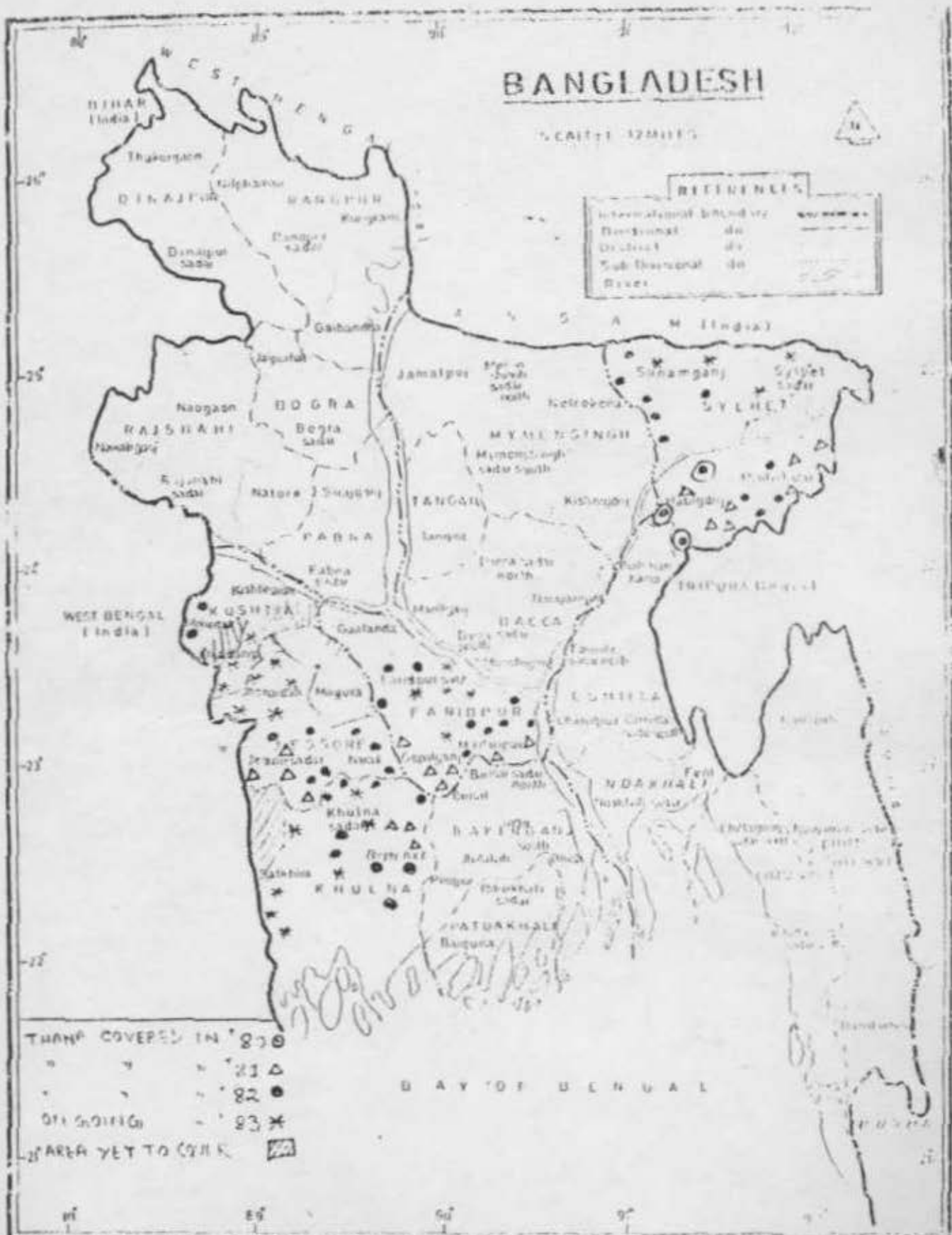
In our country the practice in treatment of diarrhoea varies from place to place. Homeopathy, biopathy, herbal, incantation all these processes are in the practice. There are tablets, syrups, capsules and different types of antibiotics as well. These medicines temporarily relieve the patient but these are also harmful for health. One of the best dependable treatments, so far discovered, for diarrhoea - cholera is injectable saline. But it is not easily available in rural areas. One will have to pay high, if one gets it. Administration of this injectable saline requires a doctor or trained health worker, which is also a problem. Though some organizations have started its distribution through commercial channels, the availability is still a problem.

Considering all these practical aspects BRAC devised an easy, safe and effective oral saline. One can prepare it by mixing one 3-finger pinch of salt (upto 1st crease), one scoop of gur with half a seer of water, all available at each household. It is difficult to make the body absorb salt and water also. Here gur works as the carrier which helps the body in absorption process. As a result the patient gets back his strength. So it is always advisable that dispensation of oral saline should start WITH the very first loose motion. Normal dose for an adult is half a seer of saline after every motion. In case of children, the dose will be as much as they want to take. This saline will simultaneously check dehydration and help body in washing out process. As it is not possible to clean out all the germs by only two or three doses, the dispensation should continue as long as diarrhoea prevails. In some cases, there may be increase in frequency of motions and vomiting at the initial stages of taking Oral Saline. This is very temporary and dispensation should not be stopped. Please remember that there is nothing harmful in oral saline. It checks dehydration, helps body wash out germs, provides nutrition, strength and preventive power.

During diarrhoea, drinking of additional water should continue along with the saline. Green coconut water, if available, is also very useful. There is a general practice in our country that diarrhoeal patients are forbidden from taking any food. This practice is not right and harmful. Diarrhoea patients must be given all the normal daily food along with banana, papaya etc., if available. Lactating babies must be continued with the milk. Care should be taken that the nipples are properly cleaned. Others must wash hands, face and also the crockeries being used in eating. Food should always be kept covered. All water for drinking or use should be pure as far as possible. In this respect tap or tubewell water is dependable.

In the discussion different types of relevant pictures, charts, simile, etc., wherever possible and necessary. Support materials like posters, flip charts, 7 points, health education material etc., may be helpful in this respect.

O T E P AREAS COVERED 1980-1983



Statistical Report on Progress in OTEP Programme Areas (January 31, 1983)

Completed Areas

Area No.	Operating Sub-division	No. of teams	No. of ORW's	No. of ORW days	Households visited during the month	Cumulative total of Households visited	Household monitored in previous month	Percentage of Households monitored as/grade in previous month				Av. House-visited/ORW	Av. House-visited/ORW/day
01	Habigonj					118'809							
02	Jessore					179'637							
03	Gobalgonj					116'081							
04	Moulevibazar					119'033							
05	Bagerhat					152'781							
10	Narail					66'618							
								A	B	C	D		
06	Madaripur	9	61	1401	13'485	207'103	671	44.41	50.52	3.73	1.34	221.07	9.63
07	Sylhet Sadar	5	32	753	6'907	49'256						215.84	9.17
08	Khulna Sadar	5	37	892	8'801	135'443	470	53.17	43.02	3.49	0.32	237.86	9.87
09	Faridpur Sadar	8	57	1164	11'143	142'061	594	51.01	43.77	2.36	2.86	195.49	9.57
11	Meherpur	4	28	68	624	48'632	380	51.31	48.16	0.53	-	22.29	9.18
12	Sunamganj	14	90	1983	19'031	164'161	971	44.90	49.02	3.09	2.99	211.46	9.60
13	Jhenaidah	9	68	1460	14'288	67'432	755	52.05	46.76	0.79	0.40	210.12	9.79
14	Satkhira	12	82	1997	19'811*	51'621*	1030	50.39	45.17	3.22	1.24	241.60	9.92
15	Chuadanga	7	44	1608	16'115	37'364	554	52.89	46.03	0.90	0.18	223.82	10.02
	T O T A L	73	499	11'326	110'205	903'073	5425	50.01	46.56	2.26	1.17	220.85	9.73
Cumulative Regional Totals					171'735	1'656'032							9.64

* 3697 HHS of Satkhira area covered by 2 teams (14 ORW) of Khulna.

RETENTION OF MESSAGE
MONITORED GRADE (AS PERCENTAGE OF HOUSEHOLDS)
FROM SEPTEMBER 1982 TO DECEMBER 1982

Percentage of Household/Grade

AREA	SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	A	B	C	A	B	C	A	B	C	A	B	C
Bagerhat	46.9	42.5	6.9	50.0	42.3	5.9	-----	-----	-----	-----	-----	-----
Madaripur	47.0	49.4	2.7	48.1	48.4	3.2	50.2	47.0	2.3	54.3	42.8	2.5
Khulna Sadar	50.3	41.9	7.3	51.6	42.6	4.9	53.9	41.7	3.4	49.8	47.1	2.5
Faridpur Sadar	42.7	50.8	3.0	44.5	45.8	4.9	49.1	44.8	3.3	48.8	48.6	1.1
Narail	49.7	46.6	1.6	-----	-----	-----	-----	-----	-----	-----	-----	-----
Meherpur	48.0	50.2	0.9	53.9	45.8	0.3	49.8	48.5	0.8	53.1	46.6	-----
Sunamganj	52.0	41.4	1.5	43.4	52.3	1.8	47.0	48.2	2.8	44.1	50.9	3.7
Jhenaidah	45.0	54.7	---	53.6	43.5	2.1	50.3	48.0	1.2	50.3	47.9	0.8
Satkhira	-----	-----	-----	-----	-----	-----	58.2	38.6	3.0	48.6	46.9	4.4
Chuadanga	-----	-----	-----	-----	-----	-----	52.6	45.2	2.2	52.1	46.5	1.0

USAGE RATES

DECEMBER 1982

AREA	THANA	UNION	DIARRHOEAL CASE	L.C.S USED	Z
SUNAMGONJ (2)	SUNAMGONJ	MONANPUR	56	6	10.7
"	SATAK	NOARAI	19	7	36.8
"	DERAI	JAGADAL	36	3	8.3
"	JAGANATHPUR	PAILGAO	36	12	33.3
"	CHATAK	DOARABAZAR DAKHIN	20	6	30.0
SUNAMGONJ :			167	34	20.4
MADARIPUR	SHIBCHAR	KATALBARI	117	55	47.0
"	MADARIPUR	SIRKHARA	128	35	27.3
"	RAJOIR	RAJOIR	104	56	53.8
MADARIPUR AREA:			349	146	41.8
FARIDPUR	SADARPUR	KRISNAPUR	51	15	29.4
"	BANGA	CHANDRA	25	15	60.0
FARIDPUR AREA:			76	30	39.5
CHUADANGA	JIBONNAGAR	BAKAH	202	60	29.7
"	DAMURHUDA	NATIPATA	130	39	30.0

APPENDIX 18

REPORTED DIARRHOEA CASES
2 WEEK RECALL,
IN RURAL BANGLADESH, AUGUST AND SEPTEMBER 1982

TABLE 1

Reported Diarrhoea Episodes
and Incidence by Age and Sex

AGE	EPISODES			POPULATION			INCIDENCE		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
0	64	40	104	757	818	1575	2.06	1.27	1.72
1-4	396	309	705	4089	4416	8505	2.36	1.70	2.01
0-4	460	349	809	4846	5234	10080	2.31	1.62	1.95
5-14	441	292	733	9342	9249	18591	1.15	0.77	0.96
15-44	277	206	483	11079	11301	22380	0.61	0.44	0.52
45+	114	76	190	4623	3927	8550	0.60	0.47	0.54
All	1292	922	2215	29890	29711	59601	1.05	0.76	0.90

TABLE 2

Diarrhoeal Episode by Sex of Patient
and Type of Treatment

Sex	L.G.S.	OTHERS	NO TREATMENT	TOTAL
MALE	230 (17.8)	426 (32.9)	637 (49.3)	1293 (100.0)
FEMALE	140 (15.2)	297 (32.2)	486 (52.6)	923 (100.0)
TOTAL	370 (16.7)	723 (32.6)	1123 (50.7)	2216 (100.0)

Diarrhoeal Episode by Age and Sex of Patient and
Type of Treatment

AGE GROUP	TREATMENT METHODS									GRAND TOTAL		
	L.G.S.			OTHERS			NO TREATMENT					
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
0 - 4	72 (15.7)	48 (13.8)	120 (14.8)	181 (39.3)	139 (39.8)	329 (39.6)	207 (45.0)	162 (46.4)	369 (45.6)	460 (100.)	349 (100.)	809 (100.0)
5-14	74 (16.8)	51 (17.5)	125 (17.1)	129 (29.2)	69 (23.6)	198 (27.0)	238 (54.0)	172 (58.9)	410 (55.9)	441 (100.)	292 (100.)	733 (100.)
15-44	60 (21.7)	32 (15.5)	92 (19.1)	82 (29.6)	65 (31.6)	147 (30.4)	135 (48.7)	109 (52.9)	244 (50.5)	277 (100.)	206 (100.)	483 (100.)
45+	24 (21.1)	9 (11.8)	33 (17.4)	34 (29.8)	24 (31.6)	58 (30.5)	56 (49.1)	43 (56.6)	99 (52.1)	114 (100.)	76 (100.)	190 (100.)
N.S.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.)	0 (0.0)	1 (100.)	1 (100.)	0 (0.0)	1 (100.)
TOTAL	230 (17.8)	140 (15.2)	370 (16.7)	426 (32.9)	297 (32.2)	723 (32.6)	637 (49.3)	486 (52.6)	1123 (50.7)	1293 (100.)	923 (100.)	2216 (100.)

APPENDIX 18

TABLE 4

Diarrhoeal Episode by Landholding of
Patient's Family and Type of Treatment -
By Number and Percentage (%)

LANDHOLDING acres	TREATMENT METHOD			
	LGS	Other	No Treatment	TOTAL
0,50	141 (14.6)	293 (30.4)	530 (55.0)	964 (100.0)
0,51 - 2,50	124 (19.0)	184 (28.2)	344 (52.8)	652 (100.0)
2,51+	102 (17.5)	237 (40.6)	245 (41.9)	584 (100.0)
TOTAL	367 (16.7)	714 (32.6)	1119 (50.7)	2200 (100.0)

TABLE 5

Diarrhoeal Episode by Severity of Disease
and Type of Treatment

SEVERITY	TREATMENT METHODS			TOTAL
	LGS	OTHERS	No Treatment	
SEVERE	149 (21.1)	249 (36.8)	278 (41.1)	676 (100.0)
NON-SEVERE	221 (14.3)	474 (30.8)	845 (54.9)	(100.0)
TOTAL	370 (16.7)	723 (32.6)	1123 (50.7)	2216 (100.0)

APENDIX 18

TABLE 6

Use of LGS by Severity of Diarrhoea
and Frequency of Use

FREQUENCY in Taking LGS	LGS USER		TOTAL
	Severe	Non-Severe	
1-3 times	113 (38.8)	178 (61.2)	291 (100.0)
4-5 times	24 (46.2)	28 (53.8)	52 (100.0)
6 +	12 (44.4)	15 (55.6)	27 (100.0)
TOTAL	149 (40.3)	221 (59.7)	370 (100.0)

FACTORS WHICH POSSIBLY AFFECT THE EFFECTIVENESS OF THE TEACHING

positivelyPersonality of mother

- alertness / intelligence
- eagerness / willingness to accept changes
- o - age of mother

Socio-economic status and cultural background of family

- o - socio-economic status of family (land-owner or not, source and size of revenue)
- o - schooling of male head of household
- o - schooling of mother
- o - schooling of children
- o - religion

negativelyPersonality of mother

- mother is slow in learning
- lack of interest in any change
- lack of curiosity
- o - age of mother

Socio-economic and cultural background of family

- o - socio-economic status of family (land-owner or not, source and size of revenue)
- o - male head of household is illiterate or has little schooling
- o - mother is illiterate or has little schooling
- o - no children go to school
- (o) - "conservatism" through religious influences
- fatalism

o is/could possibly be measured by research
 * can be influenced by OTEP

EFFECTIVENESS OF TEACHING (3)

<u>positively</u>	<u>negatively</u>
<u>Content of teaching</u> <ul style="list-style-type: none"> * - message is clear, easy to understand and concise * - easy to remember * - fits into the mother's knowledge and cultural pattern - fits into her preoccupations of that moment as diarrhoea is a major problem for the family: <ul style="list-style-type: none"> o . incidence high in the region * . teaching takes place at "peak season" * - definition of diarrhoea is adequate, the right local terms are used 	<u>Content of teaching</u> <ul style="list-style-type: none"> - message too complex, difficult to grasp, confusing - message is of no interest to the mother, she does not see its relevance - diarrhoea is not a major problem for the family: <ul style="list-style-type: none"> . is not perceived as a major problem o . has low incidence in the region . diarrhoea is not a major problem <u>at the moment of the teaching</u> (teaching takes place during "low season") * - definition of diarrhoea is not clear, the wrong local terms are used
<u>Duration of teaching, Follow-up</u> <ul style="list-style-type: none"> * - adequate duration for the message to be taken up * - adequate reinforcement and/or "refresher" action 	<u>Duration of teaching, Follow-up</u> <ul style="list-style-type: none"> * - "quick teaching", ORW visit too short, teaching too condensed to "sink in" * - "one shot action", no "refresher" action, no reinforcement * - Follow-up, instead of reinforcing, destroys willingness of mother (attitude of interviewer etc.)

EFFECTIVENESS OF TEACHING (2)

<u>positively</u>	<u>negatively</u>
<u>Willigness of the mother to receive the teaching</u>	<u>Lack of willingness of the mother to receive the teaching</u>
<ul style="list-style-type: none"> - she has been motivated <ul style="list-style-type: none"> * . through posters etc. * . knowing of other cases * - her husband has been motivated * - credibility of BRAC/ORW (*) - no fear of family planning or other underneath intentions 	<ul style="list-style-type: none"> * - she is taken by surprise, is therefore suspicious or too shy, or frightened (*) - she does not care, ORW fails to convince her <ul style="list-style-type: none"> - she is not available or has no time - fear of family planning or other implication (political etc.)
<ul style="list-style-type: none"> * <u>Method of teaching and personality of ORW</u> <ul style="list-style-type: none"> - attitude and personality of ORW makes mother feel at ease - teaching module, language used, examples quoted are culturally adapted - teaching aids are adapted: flip chart easily understood, adequately used - ORW starts with what mother knows - ORW makes the mother "participate" 	<ul style="list-style-type: none"> * <u>Method of teaching and personality of ORW</u> <ul style="list-style-type: none"> - ORW makes mother feel uneasy or she feels diminished - ORW does not speak clearly, has an unpleasant voice - module, language or example inadequate - teaching aids (flip chart) not understood, confusing - teaching aids not adequately used - ORW uses instruments (e.g. spoon) which mother normally does not have - ORW fails to sense when mother is reluctant or has questions to ask, ORW fails to have a dialogue with the mother, mechanical teaching
<u>Message is integrated into daily life</u>	<u>Message is isolated</u>
<ul style="list-style-type: none"> * - message fits in with global pattern of pre-occupations 	<ul style="list-style-type: none"> * - message has no relation to daily life activities or preoccupations * - mother is frustrated because other important health problems are neglected

EFFECTIVENESS OF TEACHING (3)

<u>positively</u>	<u>negatively</u>
<u>Content of teaching</u> <ul style="list-style-type: none"> * - message is clear, easy to understand and concise * - easy to remember * - fits into the mother's knowledge and cultural pattern - fits into her preoccupations of that moment as diarrhoea is a major problem for the family: o . incidence high in the region * . teaching takes place at "peak season" * - definition of diarrhoea is adequate, the right local terms are used 	<u>Content of teaching</u> <ul style="list-style-type: none"> - message too complex, difficult to grasp, confusing - message is of no interest to the mother, she does not see its relevance - diarrhoea is not a major problem for the family: o . is not perceived as a major problem o . has low incidence in the region o . diarrhoea is not a major problem <u>at the moment of the teaching</u> (teaching takes place during "low season") * - definition of diarrhoea is not clear, the wrong local terms are used
<u>Duration of teaching, Follow-up</u> <ul style="list-style-type: none"> * - adequate duration for the message to be taken up * - adequate reinforcement and/or "refresher" action 	<u>Duration of teaching, Follow-up</u> <ul style="list-style-type: none"> * - "quick teaching", ORW visit too short, teaching too condensed to "sink in" * - "one shot action", no "refresher" action, no reinforcement * - Follow-up, instead of reinforcing, destroys willingness of mother (attitude of interviewer etc.)

FACTORS WHICH POSSIBLY AFFECT THE USAGE RATE

<u>positively</u>	<u>negatively</u>
<p>* <u>Effectiveness of teaching</u></p> <p><u>Positive experience</u> in the family or in the neighbourhood with LGS:</p> <ul style="list-style-type: none"> * - teaching either was combined with treatment o - or diarrhoea episode occurred shortly after teaching <p><u>"Belief" in ORG/LGS</u></p> <p>is possibly promoted by</p> <ul style="list-style-type: none"> * - publicity (mass media etc.) * - convincing teaching (*) - self-help attitude of family, confidence in their own capacities 	<p>* <u>Uneffective teaching</u></p> <p><u>Negative experience</u> with LGS: LGS, though used, had no effect, child (or adult) died in spite of its use; possible causes:</p> <ul style="list-style-type: none"> - it was not diarrhoea alone - LGS was given too late - too little was given, or solution not correct, possibly because: <ul style="list-style-type: none"> * . teaching insufficient o . too long a period between teaching and the diarrhoea episode <p><u>"LGS is too simple to be a good treatment",</u> doctor's (quacks, pharmacy's) treatment is given more credibility; possible causes</p> <ul style="list-style-type: none"> - belief in drugs; drug publicity - belief in practitioners, negative attitude of those (see below) * - teaching by ORW not convincing, ineffective - lack of self-confidence of mother - LGS too cumbersome to prepare - Belief that gur creates diarrhoea or other misbeliefs
<p>* can be influenced by OTEP</p> <p>o is/can possibly be measured by BRAC</p>	

positively

"Openness" of family to new changes, willingness to change; possibly influenced by:

- o - religion
- situations where family has to change behaviour in order to survive
- o - the fact that the family belongs to a minority
- o - schooling of father
- o - schooling of mother
- o - contacts of family members with other communities of similar status but having different way of behaviour

Availability of LGS combined with the fact that

- o - family is too poor to afford the treatment of a doctor or to buy the prescription of the pharmacist
- o - family lives too far away from health centre where treatment would be available
- family is aware it can save money and yet be treated effectively

* Positive supportive attitude of practioners and Health personnel

* Community pressure

- positive attitude of elites, authorities, leaders etc.

negatively

"Conservatism", mistrust of new methods; possibly influenced by:

- o - religion
- o - lack of schooling of father
- o - lack of schooling of mother
- o - lack of contact with other communities

No gur available and/or Availability of other methods of treatment, because

- o - family can afford doctor's treatment
- o - health centre can easily be reached

(o) Negative attitude of practioners or health personnel to LGS (and ORS), doctors tend to prescribe other treatments as well.

Community pressure

- negative attitude of leaders, elites etc.

USAGE RATE(3)

positively

(*) Treatment of diarrhoea with LGS "fits" into the pattern of behaviour

* Head of household is in favour of LGS

* Neighbourhood knows about LGS, is in favour

* Positive image of BRAC

o General economic status of area

negatively

(*) Knowledge about LGS not related with general pattern of behaviour

Head of household reluctant or does not know about this new method.

Neighbourhood has negative attitude towards LGS

* ORW is a stranger to the village

o General economic status of area

A Design and Field Methods for Monitoring Impact
On Mortality of an Oral Therapy Programme

A.M. Raza Chowdhury¹

Stan D'Souza²

STUDY DESIGN

The design for studying the impact of oral rehydration programme on mortality envisages a double stratification of thanas (one geographic and one on the basis of "famine liability"), a sliding selection of two unions from each of four strata. A baseline survey in each union followed by retrospective multi-round surveys in the selected unions have been planned.

STRATIFICATION

A double stratification of the five districts under the programme has been made. The first was a geographic stratification. Sylhet on one side and the four others (viz. Jessore, Faridpur, Khulna and Kushtia) were considered as two different geographic clusters (See Appendix 2). The second stratification was done on the basis of the susceptibility of these areas to food shortage and famine. Famine is an important factor causing variation of death rates. Recent examples of the importance of famine on mortality levels have occurred in Comaniganj and Matlab (10,14).

Differences in the effectiveness of the method with respect to the impact on mortality could occur in case some areas experience food shortage and famine and some do not experience any such. This stratification has been done by classifying the Districts into three categories (15).

The scheme lists each thana according to the following categories,

1. Thanas very liable to famine.
2. Thanas liable to famine.
3. Thanas least liable to famine.

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If the thanas of the five districts under the programme are categorised according to the above schemes, the picture stands like the following:

Famine liability categories	No. of Thanas	
	Sylhet	Four other districts
1	-	(8)
2	5	(35)
3	(27)	(37)
All Strata 112	32	80

Thus the two way stratification has categorised the 112 thanas of the five districts into five "groups". Only the groups in parentheses would be studied through the evaluation.

THE SAMPLE SIZE

Determination of an "adequate" sample size for a mortality study requires prior knowledge of the age specific pattern of deaths in the population. A measurable impact of the BRAC programme can be expected primarily in the 1-4 age group. In this age range, the death rates has been estimated at 48 per 1,000 population in Comapiganj. The death rate due to diarrhoea and malnutrition related causes was 27.8. Let us consider an average union having a population of 20,000 and calculate the expected number of deaths before and after the programme (with an assumed reduction of one third of the death rate).

Total population of union	20,000
Total population in 1-4 age group	1,000
Total diarrhoeal deaths expected including malnutrition deaths (27.8 per thousand per year)	83.4
Total diarrhoeal deaths expected per six months prior to the programme	42
Total diarrhoeal deaths expected per six months after the programme	28

A sample size of about 20,000 would thus seem to be minimal measuring mortality changes. Small affects of the programme on mortality would be difficult to assess. Further, a union has defined boundaries and the villagers know in which union their households fall. Cluster sampling was adopted and compact unions were selected from each of the four group of thanas (stratum).

SELECTION OF UNIONS

In the selection of the two unions in each stratum, a "sliding process" was observed. The second union is separated from the first by about a year of programme time. In Sylhet stratum, two unions, viz. Mirpur in Bahubal thana and Munshurnagar in Rajnagar thana, were selected. The house-to-house teaching programme of *lobon-gur* saline in Mirpur was done in June-July 1981 while the programme in Munshurnagar will be done in June-July 1982. Similar selections were made in other strata as well. This process of selections will allow the observation of changes as the programme is modified over time. This will also deal with changes in vital rates not related to the programme by providing a "comparison" area. This will be possible because retrospective surveys will be done every six months simultaneously in both unions before and after programme implementation. The following scheme for Sylhet stratum is provided to give an indication of the union selection and timing of retrospective multi-round surveys.

Timing of Surveys
and Programme in
Sylhet stratum

	Union 1 (Mirpur)	Union 2 (Munshurnagar)
May 1981	Baseline survey	Baseline survey
June 1981	Programme	
November 1981	Followup survey 1	Followup survey 1
May 1982	Followup survey 2	Followup survey 2
June 1982		Programme
November 1982	Followup survey 3	Followup survey 3
May 1983	Followup survey 4	Followup survey 4
November 1983	Followup survey 5	Followup survey 5

The initial design called for a random selection of a union from amongst the unions covered during a six-monthly period. Since the second union has to be selected with comparable characteristics such as health facilities, urban effect, communications etc., it required a visit to each of the unions. Thanas falling in a six-monthly time period were listed and one was selected at random from the first time period. Thus Bahubal was selected from the Jan-June 1981 time period thanas (i.e. those thanas where the teaching programme was done during this period). The thanas falling in Jan-June 1982 formed the frame for the second thana selection and from that Rajnagar was selected at random. A similar process was followed in the selection of other thanas. The list of selected thanas is

is given below:

Stratum	Thana 1 (District)	Thana 2 (District)
Sylhet	Bahubal (Sylhet)	Rajnagar (Sylhet)
Other I	Godairhat (Faridpur)	Jajira (Faridpur)
Other II	Morrelganj (Khulna)	Shalikha (Jessore)
Other III	Batiaghata (Khulna)	Mirpur (Kushtia)

QUESTIONNAIRE

For the baseline survey, two sets of questionnaires have been developed. A short questionnaire listing household composition, sex and age as well as birth and death events for the last 13 months administered to all households. A more detailed questionnaire, including SES information and more detailed information on children ever born, survivorship and pregnancy status is administered to 20% of the households.

FIELD OPERATIONS

Brief details of the field operations are provided now. A list of villages in a union as well as a map is first prepared utilizing existing documents and correcting them by field visits. Before interviews can be started in a village three field tasks are undertaken--mapping, listing and numbering. Maps and household lists barely exist for at the village level. Hence the field teams have to prepare them. In this study, all listing starts from the North-West corner of the village and the entire village is listed anti clock-wise. The listing operation is undertaken when the village boundary is identified. A listing form is given in Appendix 3.

One unique feature in this study is the use of number plates for all households in the village. As soon as listing of a household is finished a number plate showing the number assigned to this particular household is fixed at the door of that household or at a suitable place visible from outside and beyond the reach of children. The number in Bengali is painted on a metallic sheet. Though it involves some cost, which is less than one taka per household, it gives some important advantages: Besides being more durable than ordinary census numbering, a number plate has been found to be extremely helpful in locating households which are missed or duplicated during the household listing. Moreover, the supervisors while walking through the village can make random checks without actually visiting every household by asking people on the way whether their households were numbered.

MAPPING

The next operation is making a rough sketch map of the village. This map shows (a) the physical boundary of the village, (b) the households and important landmarks and (c) the physical characteristics such as canals, *khuala*, roads, markets, mosques, big ponds, etc. Such a sketch map is very helpful in locating the households of interest. This is particularly useful for the supervisor when he spot-checks and re-interviews. Specimen of such a sketch-map is included.

INTERVIEW TRAINING

As soon as the listing, numbering and mapping of a village are completed, interviewers' training for the baseline survey starts. The group of persons involved in listing are trained to become interviewers for the baseline survey. As mentioned earlier, baseline survey is divided into two phases. The first phase interviewers are males and they go to each household and collect information on some selected household characteristics, births and deaths. The second phase interviewers are females and they go to every fifth household and collect information on fertility and pregnancies during the intervening period and diarrhoeal morbidity and treatment during the week prior to the survey.

The senior supervisory staff stationed at head office receive in-service training and over time with the development of field methodology. These senior staff, at the initial stage of field work, remain with the team in the field and train the potential team supervisors from the selection of interviewers. They are withdrawn when the lower level field supervisors become capable of managing the team. The training for grass-root workers (viz. listers/interviewers) are organised in the field.

The listers are trained initially for two days and subsequently during the course of listing. The two days training consists of one day in classroom and one day in the field. For each phase of the baseline survey, a three-day training programme is organised. The first two days are spent in classroom discussion about the theoretical aspects, such as sampling, interview techniques, etc. and the practical aspects relating to filling of different questionnaires. The third day is spent in field practice. The problems encountered and experiences gathered during field practice are subsequently discussed amongst the interviewers and their supervisors. The field practice and subsequent discussion is helpful to answer interviewers' questions and develop rapport with their supervisors. The interviewer's manual also serves a useful purpose (2).

DATA COLLECTION AND SUPERVISION OF FIELD WORK

The data collection is started as soon as the training is completed. Initially, they are given less than normal amount of work, assessed by the average number of questionnaires a trained interviewer can complete in a day. The normal load is given when the supervisors become confident about the quality of work of a particular interviewer. If the appropriate level of work and quality is not reached the supervisor recommends termination of the interviewer's contract.

The interviewers go to a village as a team and interview the households individually in one or more days. The day's work is distributed in the morning by the supervisor. The supervisor keeps a record of each assignment for making spot-checks and re-interviews. The sketch map and number plates help him a great deal in locating the households. The interviewers, during their stay in the village, interview the assigned households and make call-backs. The interviewers return to their camp in the late afternoon. During the same evening they recheck the completed questionnaires for completeness. Before submitting the completed questionnaires to the supervisors they complete the interviewer's daily record sheet (2). A major section of the supervisor's work then starts. The scrutinizing of the questionnaires keeps him busy till late in the night. The questionnaires with serious mistakes are corrected in consultation with the concerned interviewers. Once the data collection in a village is completed, they are sent to the head office for processing.

DATA PROCESSING

Once the data are received in the head office, the quite long trek of processing starts. It starts with the registration of the questionnaires. Details of data processing are outside the purview of this paper. The purchase of a micro-processor is planned, so that most of the work can be done internally in BRAC.

ACKNOWLEDGEMENTS

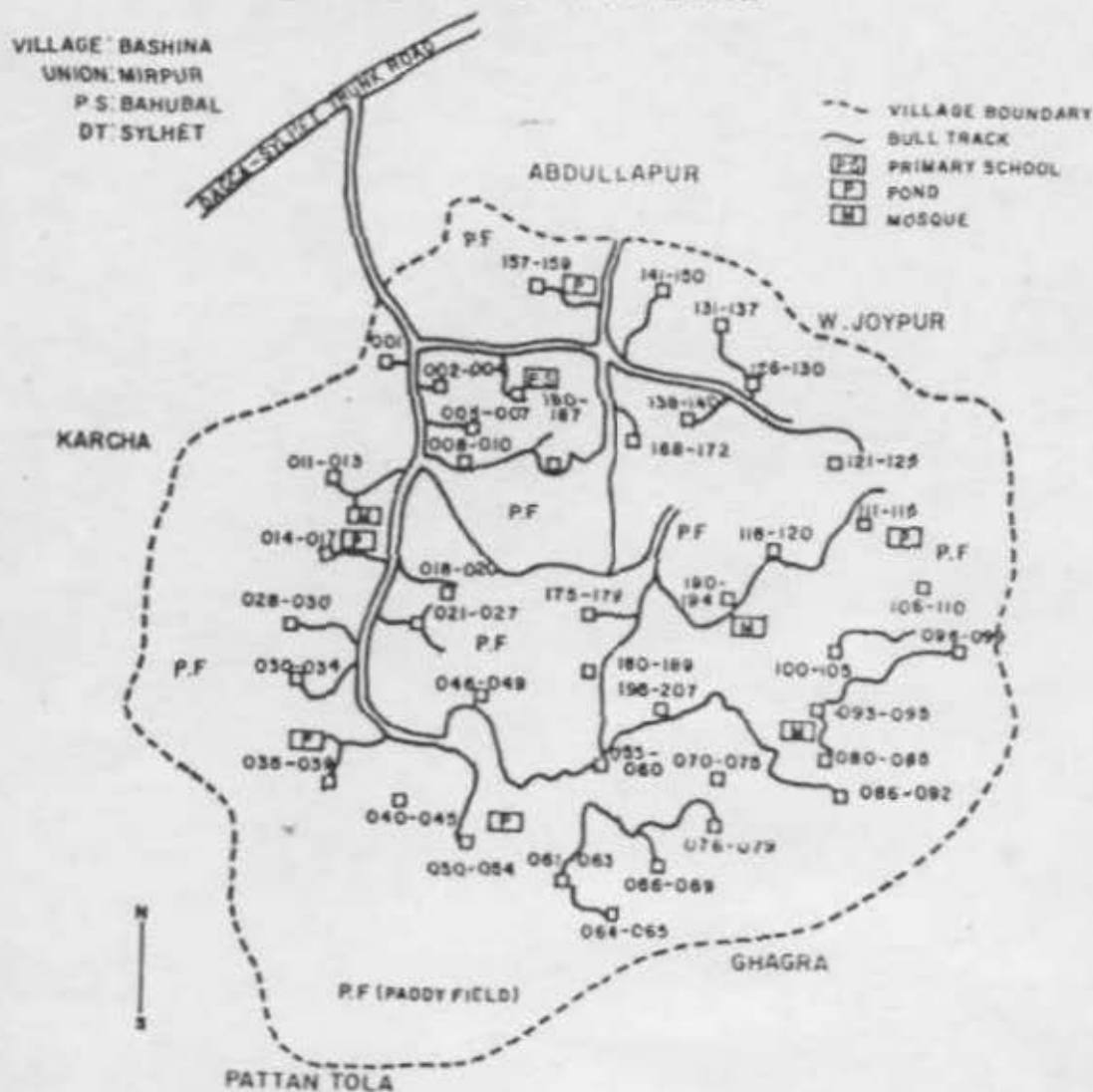
The BRAC Oral Therapy Extension Programme is funded by the Swiss Development Corporation. The assistance and valuable suggestions of colleagues in BRAC and ICDDR,B are gratefully recognised. In particular, the authors wish to thank Mr. Jalaluddin Ahmed and Mr. Arobindo Nath of BRAC. Further the financial contribution of the ICDDR,B for the publication of this report is acknowledged with thanks.

SPECIMEN SKETCH-MAP OF A UNION

UNION: MIRPUR
P.S.: BAHUBAL
D.T.: SYLHET



SPECIMEN SKETCH-MAP OF A VILLAGE



MORTALITY STUDY SCHEDULE (OPERATION)

THANA STUDY	TEAM NO. 1		TEAM NO. 2			TEAM NO. 3		
	BAHUBAL	RAJNAGAR	JAIRA	MORALGONJ	BATIAGATA	GOSAIRHAT	SHALIKA	MIRPUR
BASLINE	6.5.81 15.6.81 (41)	11.7.81 4.9.81 (56)	16.10.81 5.12.81 (51)	2.1.82 16.2.82 (46)	22.2.82 11.4.82 (49)	17.10.81 19.12.81 (64)	28.12.81 11.2.82 (46)	5.3.82 9.4.82 (36)
FOLLOW-UP1	6.11.81 16.12.81 (41)	11.1.82 7.3.82 (56)	16.4.82 5.6.82 (51)	2.7.82 16.8.82 (46)	22.8.82 9.10.82 (49)	17.4.82 19.6.82 (64)	28.6.82 12.8.82 (46)	5.9.82 10.10.82 (36)
FOLLOW-UP2	6.5.82 15.6.82 (41)	11.7.82 4.9.82 (56)	16.10.82 5.12.82 (51)	2.1.83 16.2.83 (46)	22.2.83 11.4.83 (49)	17.10.82 19.12.82 (64)	28.12.82 11.2.83 (46)	5.3.83 9.4.83 (36)
FOLLOW-UP3	6.11.82 16.12.82 (41)	11.1.83 7.3.83 (56)	16.4.83 5.6.83 (51)	2.7.83 16.8.83 (46)	22.8.83 9.10.83 (49)	17.4.83 19.6.83 (64)	28.6.83 12.8.83 (46)	5.9.83 10.10.83 (36)
FOLLOW-UP4	6.5.83 15.6.83 (41)	11.7.83 4.9.83 (56)	16.10.83 5.12.83 (51)	2.1.84 16.2.84 (46)	22.2.84 11.4.84 (49)	17.10.83 19.12.83 (64)	28.12.83 11.2.84 (46)	5.3.84 9.4.84 (36)

STATUS OF DIFFERENT DATA FILES WITH RESPECT TO CLEANING

(January 1983)

FILES	BARUBAL			RAJNAGAR			GOSHAIRHAT			JAJIRA			MORRELGONJ			SALIKHA			BAITHAGHATA			MIRPUR		
	BS	F1	F2	BS	F1	F2	BS	F1	F2	BS	F1	F2	BS	F1	F2	BS	F1	F2	BS	F1	F2	BS	F1	F2
1	C	NS	NS	C	NS	NS	PC	NS	NS	PC	NS	NS	PC	NS		PC	NS		PC	NS		PC	NS	
2	C	PC	PC*	C	PC	PC*	PC	PC	PC*	PC	PC	PC*	PC	PC		PC	PC		PC	PC		PC	C	
3	C	C	PC*	C	C	PC*	C	C	PC*	C	C	PC*	C	C		C	C		PC	PC		PC	PC	
4	PC	NS	NS	PC	NS	NS	PC	NS	NS	PC	NS	NS	PC	NS		PC	NS		PC	NS		PC	NS	
5	-	C	PC*	-	C	PC*	-	C	PC*	-	C	PC*	-	C		-	C		-	PC		-	PC	

FILES

1. Household Composition
2. Births
3. Deaths
4. Pregnancy, etc.
5. Diarrhoea episodes and treatment

SURVEYS

- BS Baseline
F1 First Follow-up
F2 Second Follow-up

STATUS DESCRIPTION

- C. Cleaned and tables can be generated
PC. Partially cleaned and some tentative tables can be generated.
PC* Partial cleaning will be finished within one week.
NS Cleaning not started (not entered)
- Survey not done.

O T E P MORTALITY STUDY -
PRELIMINARY RESULTS FROM FOUR UNIONS

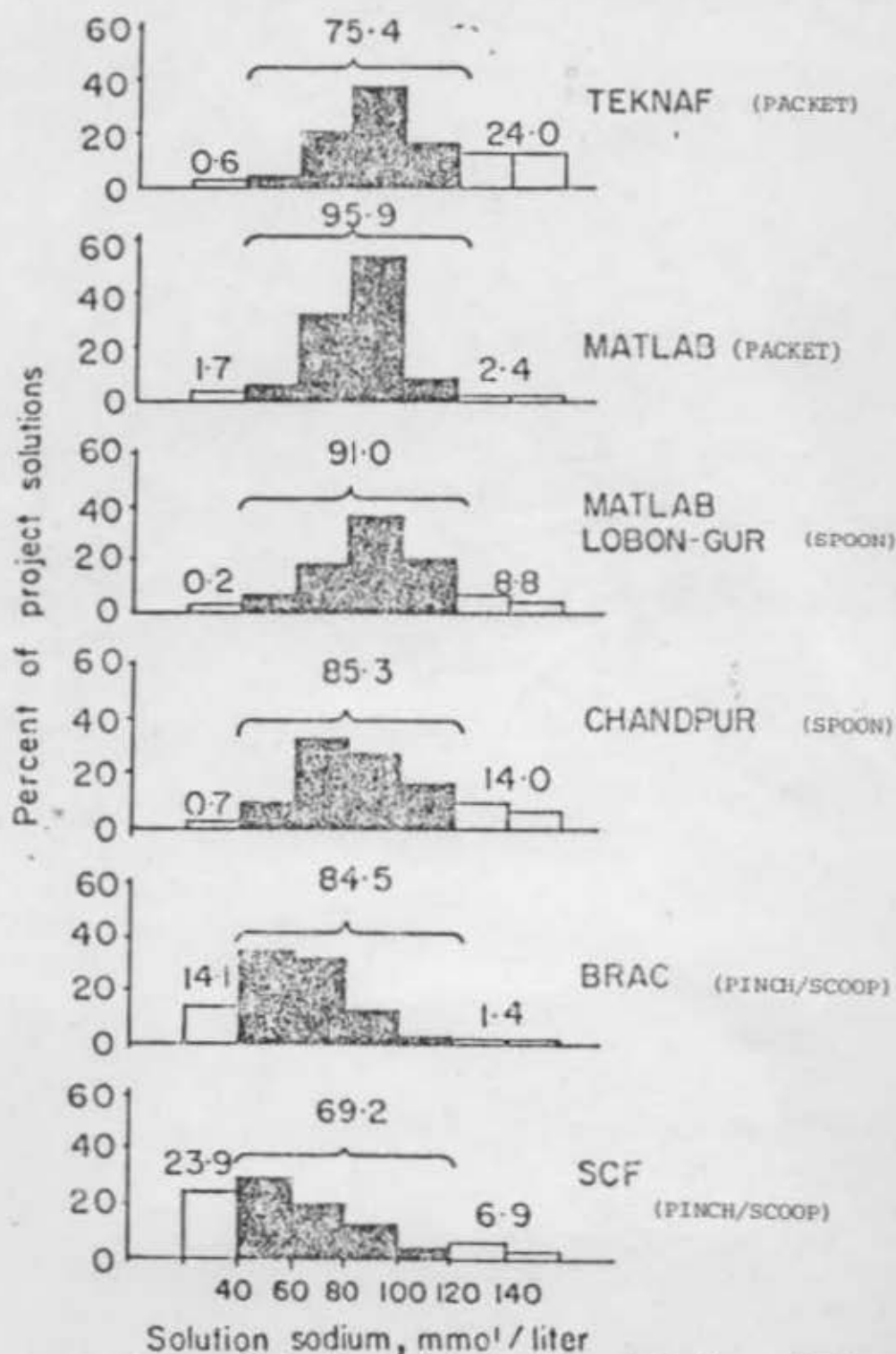
(Fall 1982)

	STRATUM I				STRATUM II			
	Goshairhat (Program)		Jajira (Comparison)		Morrelganj (Program)		Salikha (Comparison)	
	Base- line	Follow up 1	Base- line	Follow up 1	Base- line	Follow up 1	Base- line	Follow up 1
Households	3254	3218	2345	2371	3272	3472	2902	2961
Population (all ages)*	18239	18482	13186	13452	19503	18519	19517	19311
Population under 5 yrs. of age	3120	3160	2370	2421	3054	2900	3460	3418
Total deaths (12 months) all ages	285	308	234	273	264	276	247	218
Deaths under 5 yrs. of age	175	194	159	181	160	168	161	130
Crude death rate	15.6	16.7	17.7	20.3	13.5	14.9	12.6	11.3
Death rate in under 5 age group	56.1	61.4	67.1	74.7	52.4	57.3	46.5	38.0
Diarrheal deaths under 5 age groups**	19	28	12	38	10	21	19	26
Diarrheal deaths as % of all deaths (all ages)**	13.3	25.0	7.7	18.3	7.6	13.0	12.1	20.2
% of diarrheal deaths under 5 age groups**	10.8	14.4	7.5	19.6	6.3	12.5	11.8	20.0

NOTE: * The population figures in Follow up 1 have been manually computed from questionnaires.

** Diarrhea reported as the first (principal) cause of death. Corresponding figure on diarrhea associated deaths will consequently rise if multiple causes are considered.

FREQUENCY DISTRIBUTION OF SODIUM CONCENTRATIONS IN ORS FROM 6 PROJECTS IN BANGLADESH*

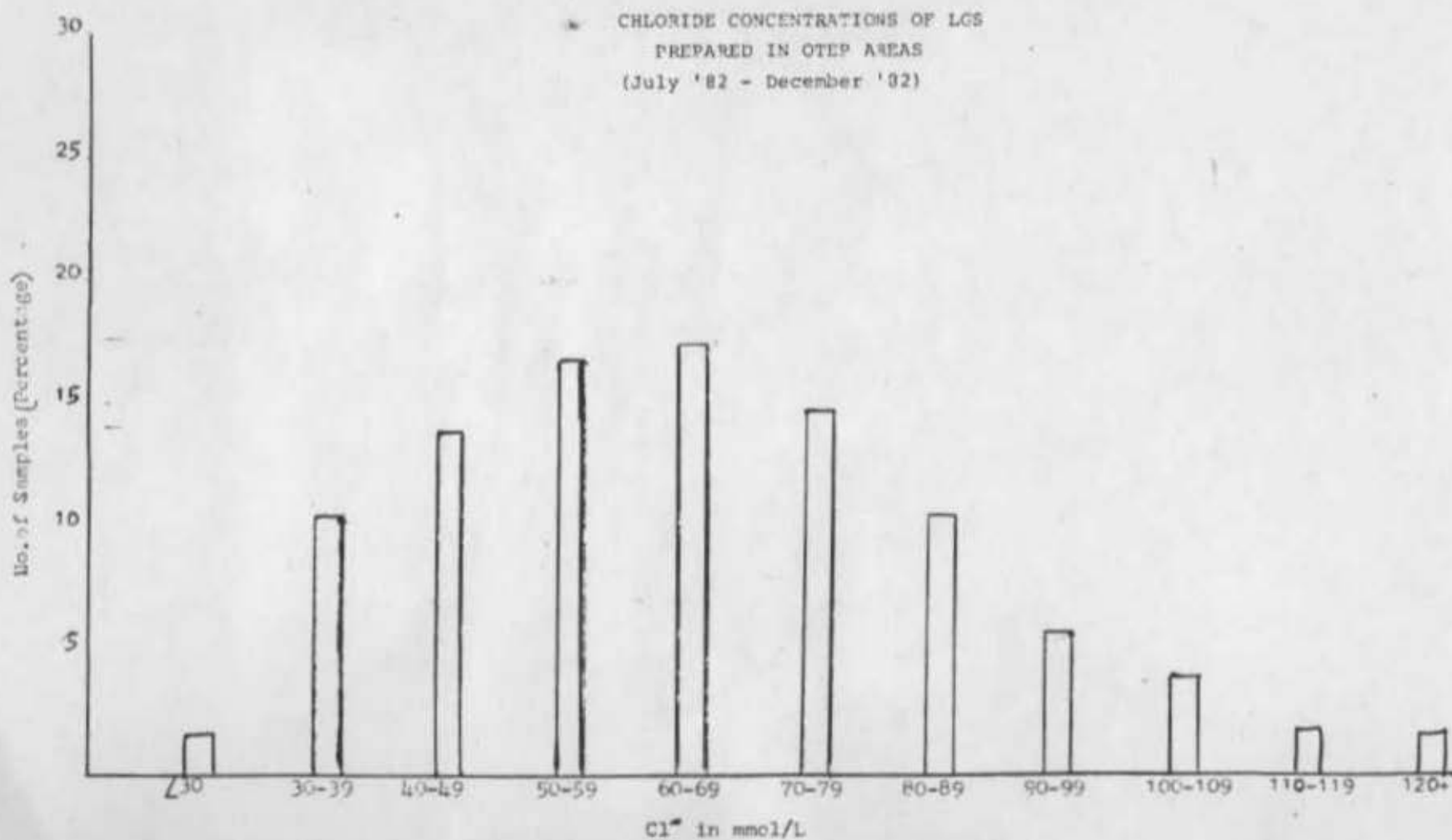


* Sodium Content of Home-Made Oral Rehydration Solutions Collected from Different Projects in Bangladesh - by MA Wahed, S Zimicki, MM Rahman - ICCDR-B to be published

Sodium Content at Home-prepared Oral Rehydration Solution*

Project	N	Mean	SD	Range	CV%	%<40	%>120
Teknaf	175	105.7	41.9	49-327	40	0.6	24.0
Matlab Packet	459	84.0	20.6	2-288	24	1.7	2.4
Matlab Lobon-gur	421	96.0	34.4	18-472	36	0.2	8.8
Chandpur	278	90.3	28.5	32-175	32	0.7	14.0
SCF	130	63.6	31.0	20-169	49	23.9	7.0
BRAC	4950	60.4	24.0	11-244	40	14.1	1.4

* Sodium Content of Home Made Oral Rehydration Solutions Collected from Different Projects in Bangladesh - by MA Wahed, S Zimicki, and MM Rahman, ICDDR,B - To be published.



PRESCRIBING PRACTICES OF PHARMACIES

Advise Given and Treatment Prescribed by 12 Pharmacies in

Jessore, Faridpur and Sylhet

Regarding Watery Childhood Diarrhoea

(EET Survey, January-February 1983)

<u>Pharmacy</u>	<u>Drug</u>	<u>Price</u>	<u>Instructions given</u>
1	Furanol* ORS (Pioneer)	Tk. 12 Tk. 10	Give glucose water or powdered milk.
2	Flagyl	Tk. 24	Give green coconut water <u>No</u> food for 2 days
3	Enterfram*	Tk. 9	<u>No</u> food
4	Enterfram	Tk. 7	Give glucose water <u>No</u> food
5	Enterfram	Tk. 7	Give glucose water
6	Streptotriad (1 tab.)	Tk. 2.40	No instructions
7	Enterfram	Tk. 7	No instructions
8	Flagyl	Tk. 24	No instructions
9	Dyneal	Tk.	Give salt water Give food
10	Enterfram ORS packet	Tk. 7 Tk. 3	Give glucose water No verbal instructions for ORS
11	Flagyl Streptotriad	Tk. 24 Tk. 2.4	Remove fat from milk
12	Enterfram ORS packet	Tk. 7 Tk. 3	No other instructions No verbal instructions for ORS

*5cc contains Neomycin sulfate 50 mg and Kaolin - 1.00 gms

BRAC OTEP

Budget & Expenditure Phase 1

	Budget Phase 1 (3 years) Tk.	Expenditure for 30 months ended Dec. 31, 1982 Tk.
1. Recruitment and Training	2,900,000	1,749,994
2. Teams (salaries, housing, transportation and supplies)	22,274,000	13,169,714
3. Area staff activities	4,489,000	3,683,731
4. Import evaluation: Data Collection		679,731
5. Data Processing	1,730,000	383,600
6. Activity evaluation	436,200	207,940
7. Administration (salaries, office rent and supplies, transport running cost)	2,145,000	1,915,083
8. Vehicles and boats	735,000	711,437
9. Publicity	773,000	374,104
10. Laboratory	680,000	267,306
11. Others: Advance and Prepayments		204,477
	<hr/> 35,683,100	<hr/> 23,256,539
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O T E P TECHNICAL ADVISORY
COMMITTEE (T A C)

List of Members (February 1983)

- | | | |
|----|--|---------------------------------|
| a. | Dr. William B. Greenough III, MD.
Director
ICDDR,B Dhaka | Physician |
| b. | Dr. Stan D'Souza, PhD.
Head, Community Services Research
Working Group
ICDDR,B Dhaka | Demographer/
Biostatistician |
| c. | Dr. Richard A. Cash, MD, MPH
Fellow, Harvard Institute for International
Development, and Director, Office of International
Health
Harvard School of Public Health
Boston, Massachusetts, USA | Physician |
| d. | Dr. Manowar Hossain
Chairman, Bangladesh Institute of Development
Studies
Dhaka | Biostatistician/
Demographer |
| e. | Adrienne Germain
Representative,
Ford Foundation
Dhaka | Social Scientist |
| f. | Dr. M.Q.K. Talukdar, MBBS, MRCP, PhD
Institute of Post-Graduate Medicine and Research
Dhaka | Physician |